-- Figure 3A is schematic depicting the pDG4 vector. The vector contains an ampicillin resistance gene, a neomycin (Neo^r) gene and a green fluorescent protein (GFP) gene. On each side of the Neo^r gene are two sites for ligation-independent cloning along with restriction enzyme recognition sites. The sequence of pDG4 is shown in Figure 3B-1 through 3B-2 and SEQ ID NO:2. --

IN THE CLAIMS

1. A murine targeting construct comprising:
   (a) a first polynucleotide sequence homologous to a target gene, wherein the target gene is a cGMP phosphodiesterase alpha subunit gene;
   (b) a second polynucleotide sequence homologous to the target gene; and
   (c) a selectable marker.

2. The targeting construct of claim 1, wherein the targeting construct further comprises a screening marker.

3. A method of producing a murine targeting construct, the method comprising:
   (a) obtaining a first polynucleotide sequence homologous to a cGMP phosphodiesterase alpha subunit gene;
   (b) obtaining a second polynucleotide sequence homologous to a cGMP phosphodiesterase alpha subunit gene;
   (c) providing a vector comprising a selectable marker; and
   (d) inserting the first and second sequences into the vector, to produce the targeting construct.

4. A method of producing a murine targeting construct, the method comprising:
   (a) providing a polynucleotide sequence homologous to a cGMP phosphodiesterase alpha subunit gene;
   (b) generating two different fragments of the polynucleotide sequence;
   (c) providing a vector having a gene encoding a selectable marker; and